

Work Order ID 163449

Tuesday, June 27, 2017 1:12:59 PM

647.3903
B 163449

163449

Page 1

Item ID: 647.3903

Revision ID:

Item Name: Deflector Assembly

Start Date: 6/27/2017 Start Qty: 1.00

Required Date: 7/3/2017 Req'd Qty: 1.00

Reference:

REV. C1

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals:

Process Plan:

DAS

21

Date: JUN 28 2017

Tooling:

Date:

Run Start *NR1*

QC:

9-89

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

647.3900

C1

110

Pick Kit

0.00

110

Packaging

Memo

0.02

Packaging

4
AUG 11 2017

DAS
6
9-89

120

0.00

120

Small Fab

Memo

0.25

Small Fab

Assemble as per dwg and apply loctite 598 on all faying surfaces per note.

A/R RTV LOCTITE 598:

exp. date: 04/17

137797

4X

17/08/28

DAS
36
9-89

130

QC5- Inspect part completeness to step on W/O

0.00

130

QC

Memo

0.02

Quality Control

4

AUG 28 2017

DAS
38
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 163449

Tuesday, June 27, 2017 1:12:59 PM

163449

Page 2

Item ID: 647.3903 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Deflector Assembly
Start Date: 6/27/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/3/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location. <i>SC1016</i>	0.00				<i>✓</i>		<i>AUG 28 2017</i>	<i>DAS 6 9-89</i>
140									
Packaging	Memo	0.02							
Packaging	***IDENTIFY AS PER IAW MPP-120***								
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	0.10							<i>17/9/5</i>
Quality Control									

*DAS
21
9-89**AUG 28 2017*

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, June 27, 2017 1:13:01 PM

Page 1

Work Order ID: 163449

163449

Parent Item: 647.3903

647 3903

Parent Item Name: Deflector Assembly

Start Date: 6/27/2017

Required Date: 7/3/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 14.07.21 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.3915 *647 3915* Deflector		Manufactured	No			110	Each	4.0000	1	<u>14</u>			DAS 6 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				cck053				4					
				154814				4					
647.3916 *647 3916* Deflector		Manufactured	No			110	Each	0.0000	1	<u>14</u>			DAS 6 9-89
										<u>162360</u>			
647.3917 *647 3917* Doubler		Manufactured	No			110	Each	9.0000	2	<u>28</u>			
				<u>Location</u>				<u>Loc Qty</u>					
				cck111				9					
				158337				9					
CR3213-6-9 *CR3213-6-9* Cherry Rivet		Purchased	No			110	Each	31.0000	6	<u>27</u>			DAS 6 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				ST319				31					
				m135015				31		<u>24</u>			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

DART AEROSPACE APICAL INDUSTRIES, INC. dba DART AEROSPACE	ENGINEERING CHANGE NOTICE NO. 04948				SHEET 1 OF 2	
	DWG NO. 647.3900	REV: C	PREPARED BY: M. ANDECK	DATE: 05/04/15	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: DEFLECTORS					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED TOLERANCE AND NOTES				ECR: D-15-01

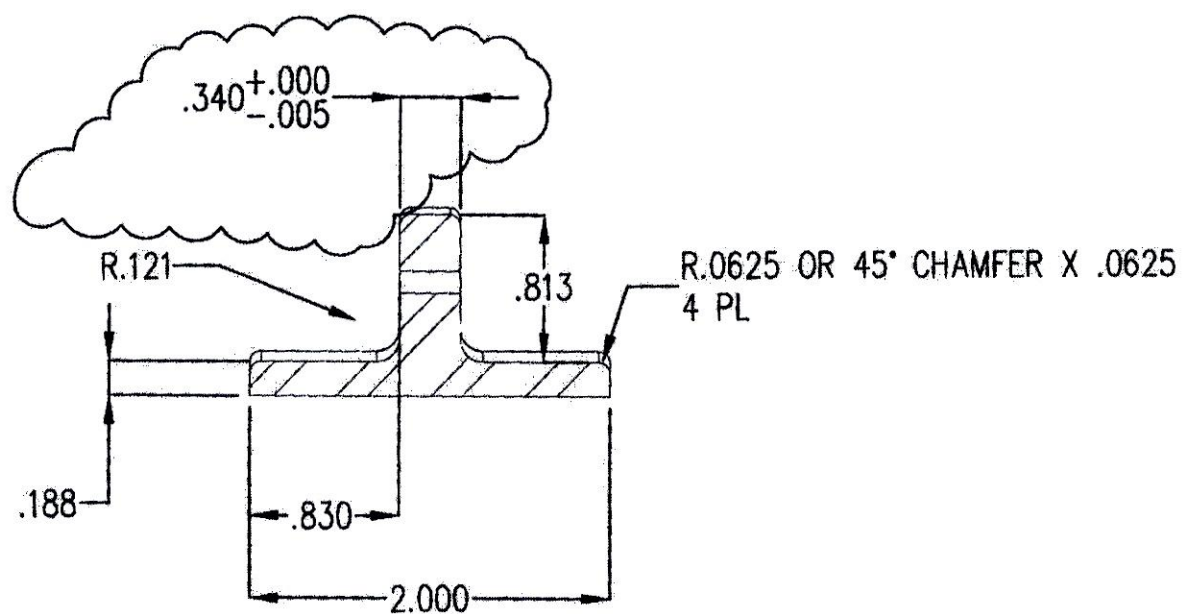
NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120.
- 5 APPLY F/N 3 AS REQUIRED TO ALL FAYING SURFACES OF F/N 6, 7 & 8 UPON ASSY.
- 6 MAXIMUM OR MINIMUM DIMENSION AFTER FINISH.
7. .0625 HOLE MAY BE ADDED FOR FINISHING PURPOSES
- 8 FINISH: PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N; 1-2 MIL MAX. APPLY FINISH AFTER ASSEMBLY.
- 9 FINISH: PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N; 1-2 MIL MAX.
- 10 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 163489
MLJ
170628

SHEET 1, ZONE B1 IS:

11	R	647.3917	2			DOUBLER	10	8
F/N	TC	PART NUMBER	.3903	.3902	.3901	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY					
DOCUMENTS EFFECTED:						CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☒ BOM						☐ MAJOR ☒ MINOR	☐ YES ☒ NO	



SECTION AT-AT

SHEET 11, ZONE C1 IS:

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04556

SHEET 1 OF 2

DWG NO. 647.3900

REV: C

PREPARED BY D. MEJIA

DATE: 06/10/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: DEFLECTORS

APPROVED BY: ENGR

MFG

QC

EFF. NEXT ORDER

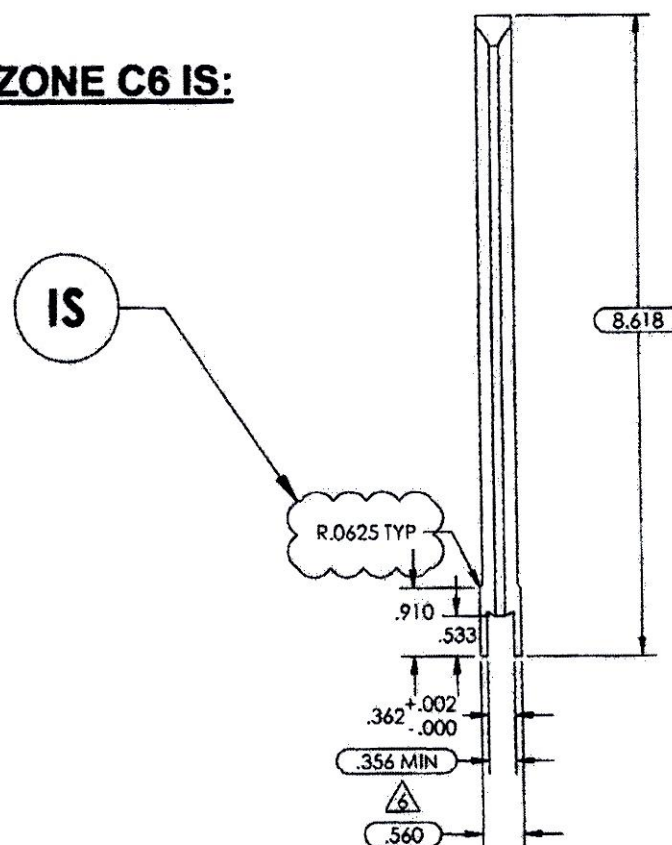
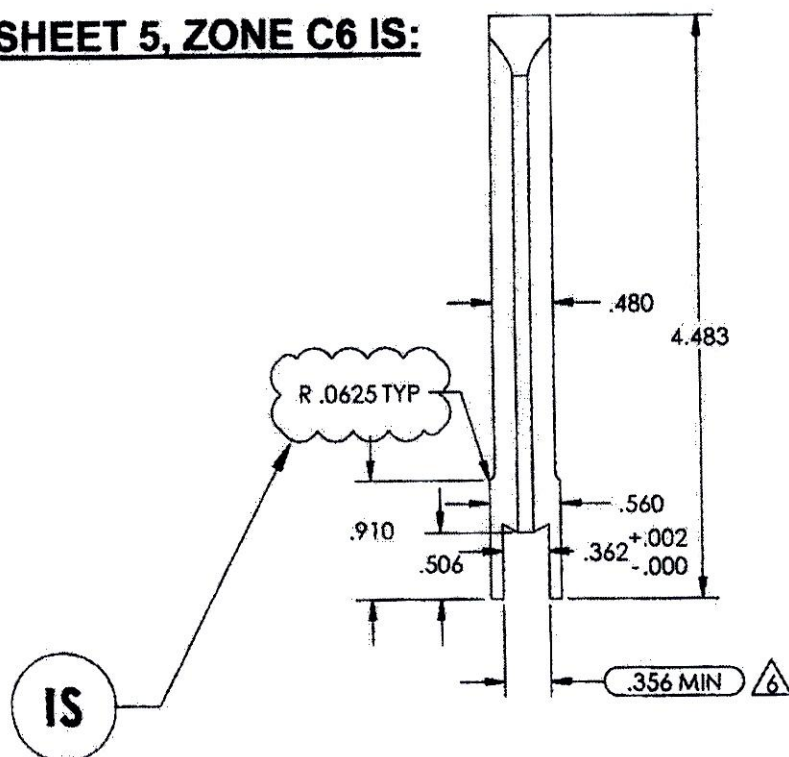
TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: CHANGED P/N, DIMENSIONS & REVISED BOM

ECR: D-14-04

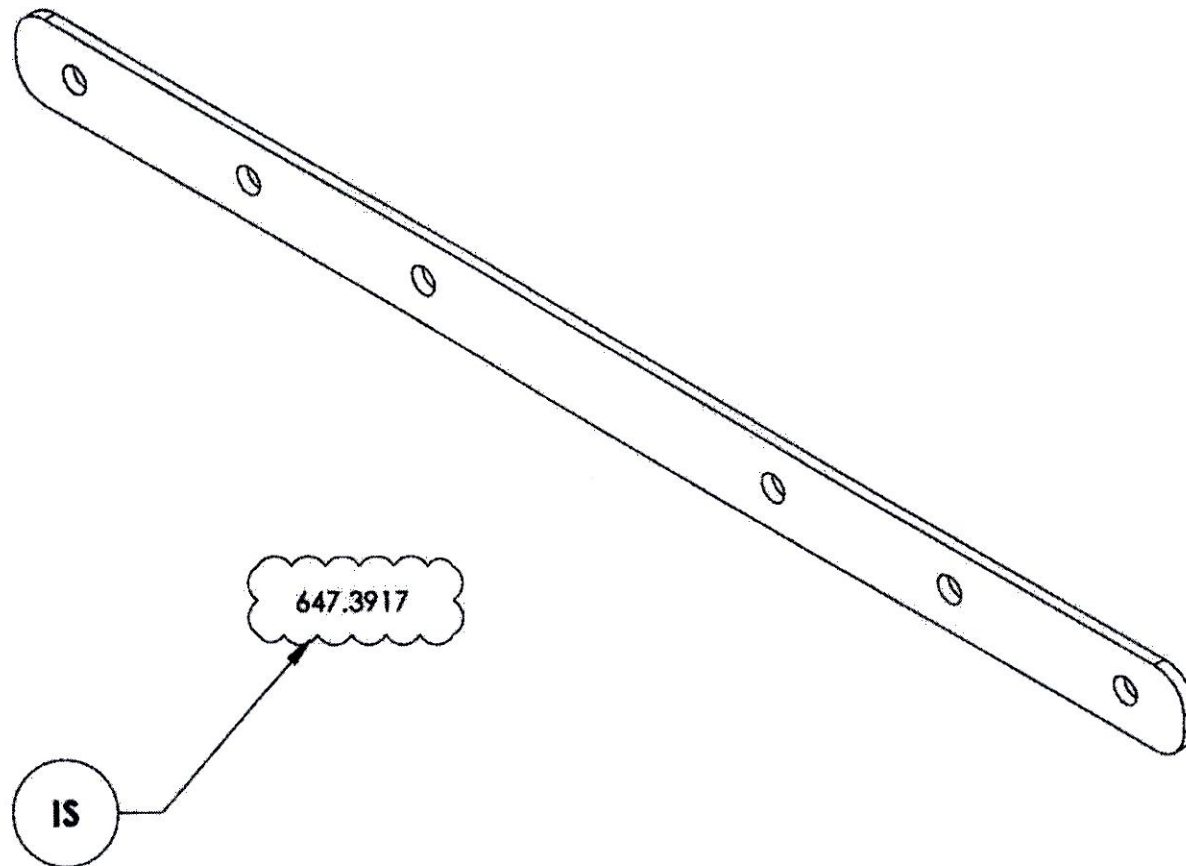
SHEET 5, ZONE C6 IS:

SHEET 6, ZONE C6 IS:



SHEET 1, BOM IS:

11	R	647.3917	2		DOUBLER		
F/N	TC	PART NUMBER	QTY		DESCRIPTION	MATERIAL	SPECIFICATION
		3903	3902	3901			
DOCUMENTS EFFECTED:						CHANGE CATEGORY	DER REVIEW REQUIRED
☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM						☐ MAJOR ☒ MINOR	☐ YES ☒ NO

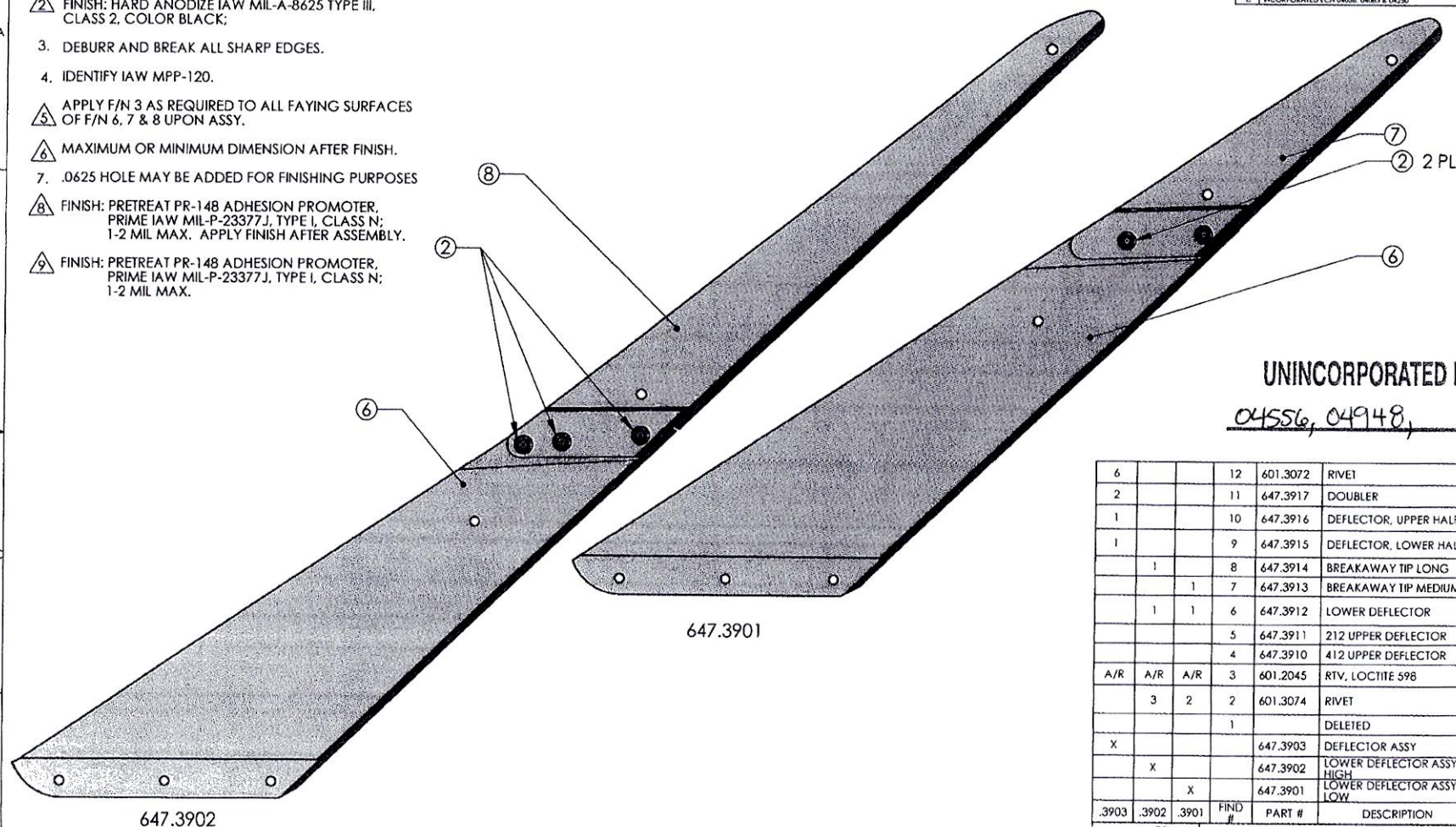
SHEET 12, ZONE B5 IS:

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NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120.
- 5 APPLY F/N 3 AS REQUIRED TO ALL FAYING SURFACES OF F/N 6, 7 & 8 UPON ASSY.
- 6 MAXIMUM OR MINIMUM DIMENSION AFTER FINISH.
7. .0625 HOLE MAY BE ADDED FOR FINISHING PURPOSES
- 8 FINISH: PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N; 1-2 MIL MAX. APPLY FINISH AFTER ASSEMBLY.
- 9 FINISH: PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N; 1-2 MIL MAX.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
LAST PROTOTYPE RELEASE: PP1			
N/C	INITIAL RELEASE	09/10/09	P. BRAVO
A	INCORPORATED ECN 02864, 03527 & 03595	07/24/12	P. BRAVO
B	INCORPORATED ECN 04025	08/02/13	P. BRAVO
C	INCORPORATED ECN 04038, 04085 & 04250	11/18/13	P. BRAVO



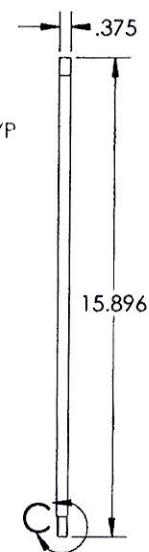
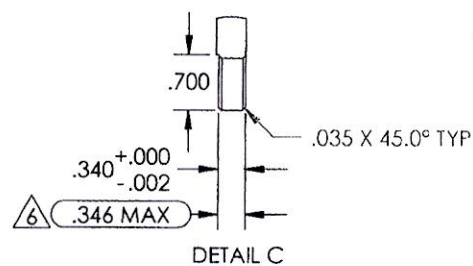
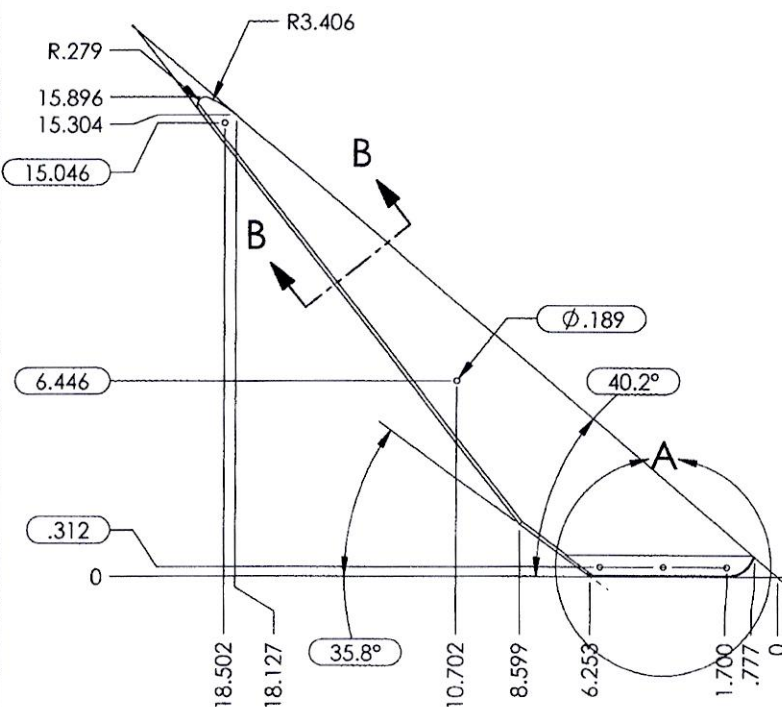
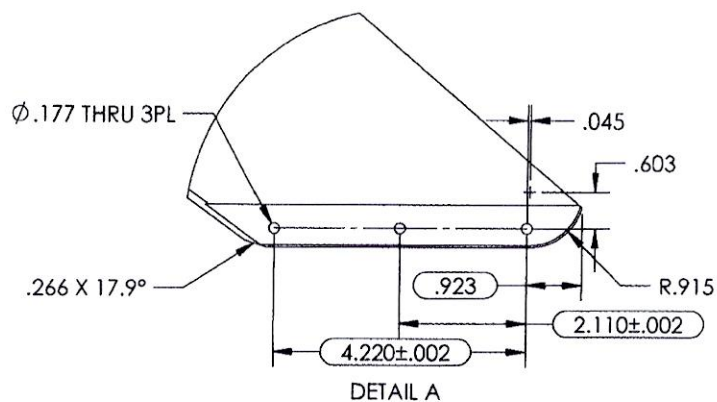
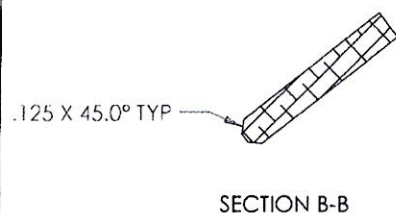
UNINCORPORATED ECN(s)

04556, 04948,

6			12	601.3072	RIVET	CR3213-6-9	
2			11	647.3917	DOUBLER		
1			10	647.3916	DEFLECTOR, UPPER HALF	△	△
1			9	647.3915	DEFLECTOR, LOWER HALF	△	△
1			8	647.3914	BREAKAWAY TIP LONG	△	△
	1		7	647.3913	BREAKAWAY TIP MEDIUM	△	△
1	1		6	647.3912	LOWER DEFLECTOR	△	△
			5	647.3911	212 UPPER DEFLECTOR	△	△
			4	647.3910	412 UPPER DEFLECTOR	△	△
A/R	A/R	A/R	3	601.2045	RTV, LOCTITE 598		△
	3	2	2	601.3074	RIVET	MS20470AD 6-12	
			1		DELETED		
X				647.3903	DEFLECTOR ASSY		△
	X			647.3902	LOWER DEFLECTOR ASSY		
		X		647.3901	HIGH LOWER DEFLECTOR ASSY		
					LOW		
.3903	.3902	.3901	FIND #	PART #	DESCRIPTION	MAT'L	SPEC

QTY		ORIGINAL DATE (MM-DD-YY)		PARTS LIST	
NEXT ASSY (S)		DRAWN BY		APICAL INDUSTRIES	
647.3800		CHECKED		2608 TEMPLE HEIGHTS DR.	
		DESIGNED BY		OCEANSIDE, CA. 92056-3512 (760)724-5300	
		DRAWING APPROVAL		DEFLECTORS	
		P. BRAVO			
		CONTRACT NO.			
		UNLESS OTHERWISE SPECIFIED		REV. C	
		DIMENSIONS ARE IN INCHES		DWD. NO. 647.3900	
		TOLERANCES ARE:		SCALE NONE	
		3 PLACE DECIMALS ±.01		SHEET 1 OF 12	
		2 PLACE DECIMALS ±.005			
		ANGLES ±.5°			

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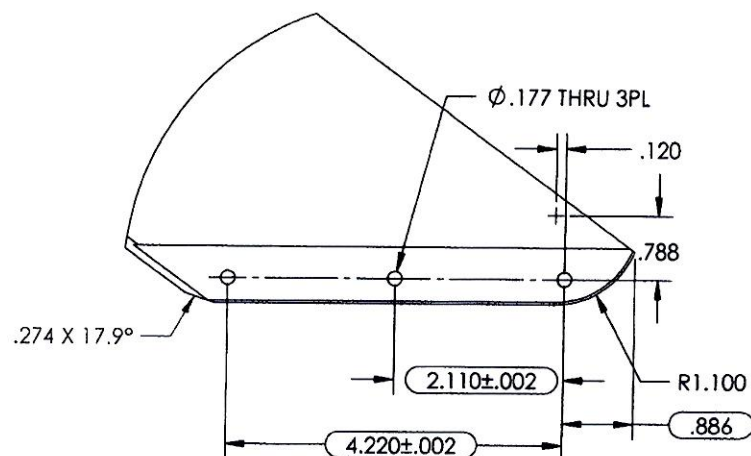
647.3911

ORIGINAL DATE 10/25/00 09:10:00		APICAL INDUSTRIES	
DRAWN BY D. HARRIS		2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL P. BRAVO		OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO.		DEFLECTORS	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET 2 OF 12	REV C

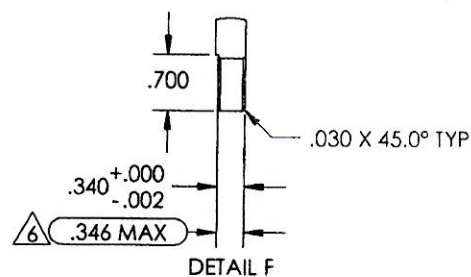
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.125 X 44.9°

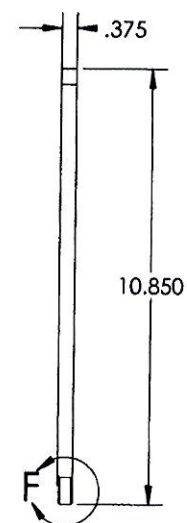
SECTION E-E



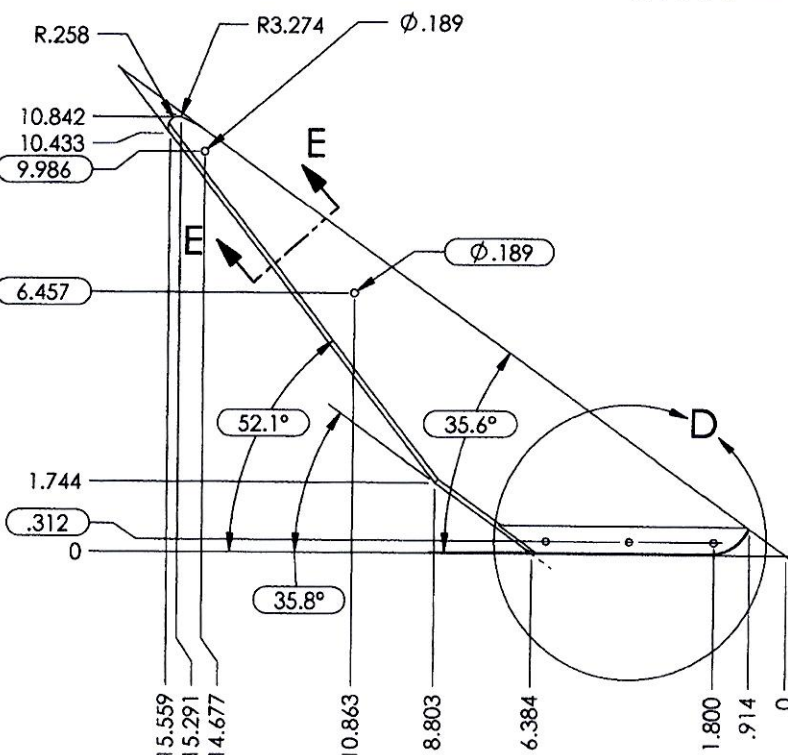
DETAIL D



DETAIL F

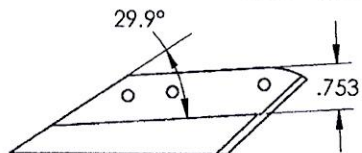


647.3910

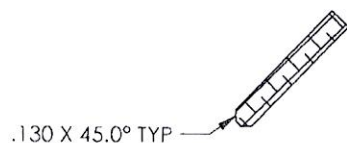


ORIGINAL DATE 08/01/01		APICAL INDUSTRIES	
DRAWN BY: D. SCHUR		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: D. BARKER		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAYO		DEFLECTORS	
CONTRACT NO.		121	REV
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± 5°		B	C
		DWG. NO. 647.3900	
		SCALE: NONE	SHEET 3 OF 12

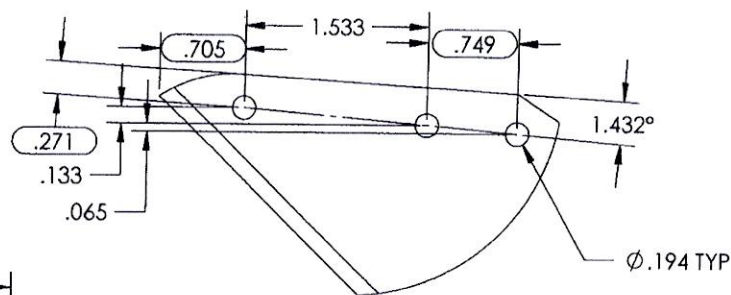
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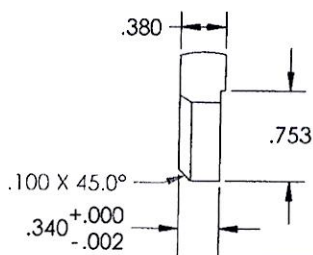
SECTION L-L



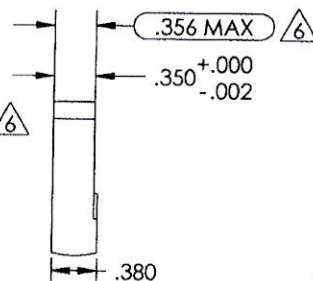
SECTION M-M



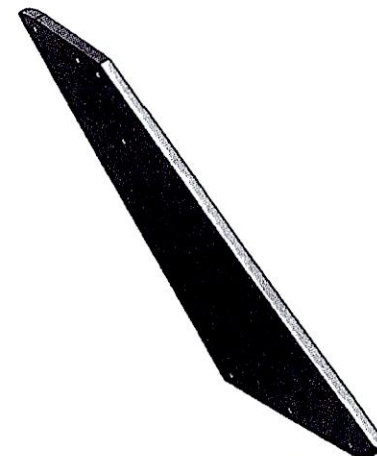
DETAIL H



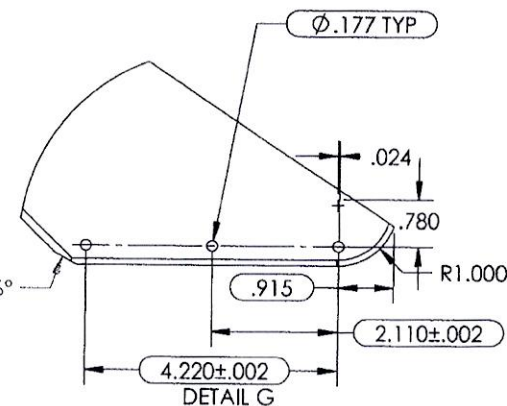
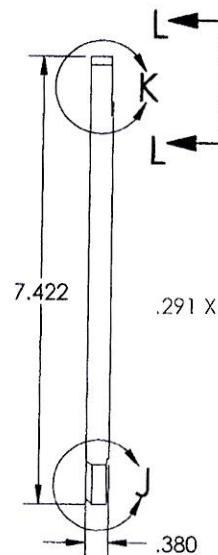
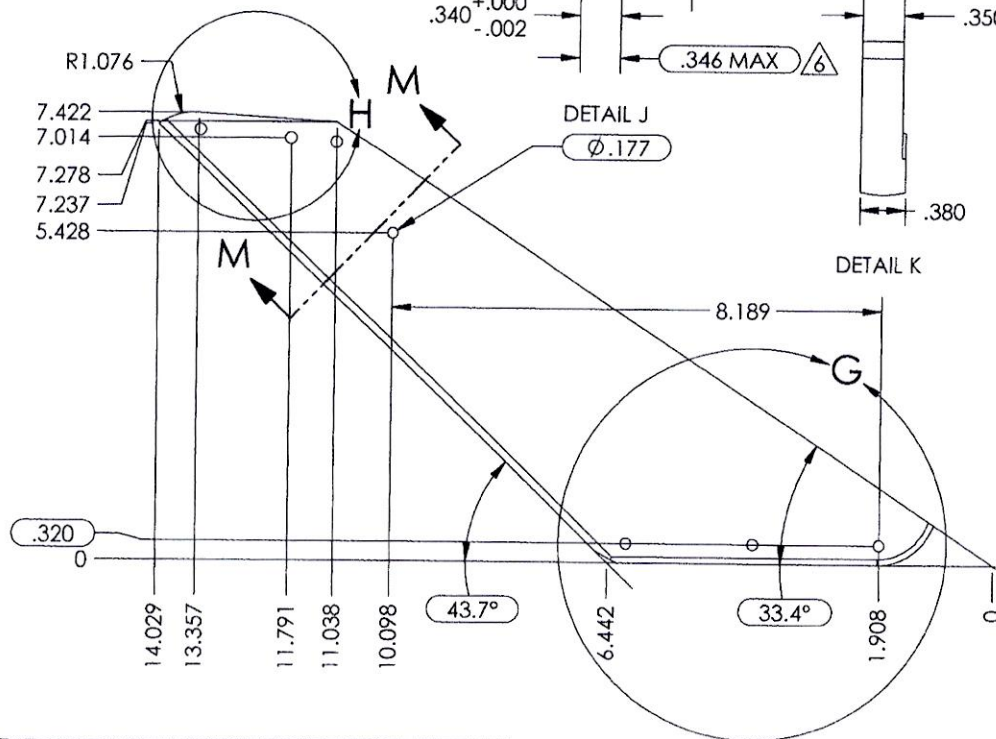
DETAIL J



DETAIL K



647.3912



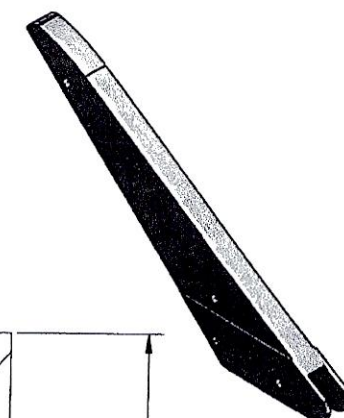
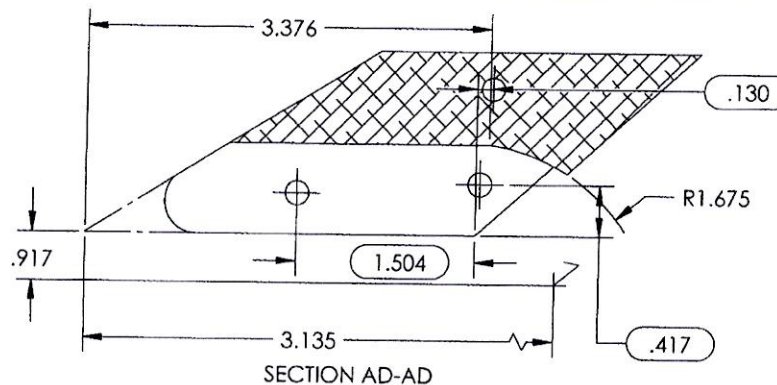
DETAIL G

ORIGINAL DATE: 09-10-09		APICAL INDUSTRIES	
DRAWN BY: G. SCHUP	CHECKED: J. BARBER	2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL: P. BRAVO	DATE: 09-10-09	OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO:		DEFLECTORS	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		REV. C	
TOLERANCES ARE:		SCALE: NONE	
2 PLACE DECIMALS ± .01		SHEET 4 OF 12	
3 PLACE DECIMALS ± .005			
ANGLES ± .5°			

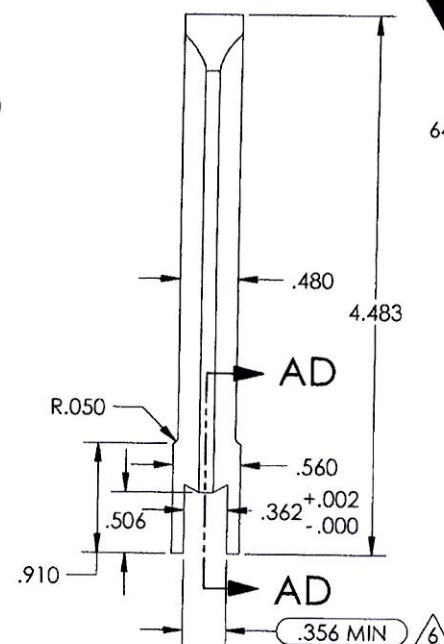
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.180 X 45.0° TYP

SECTION N-N



647.3913

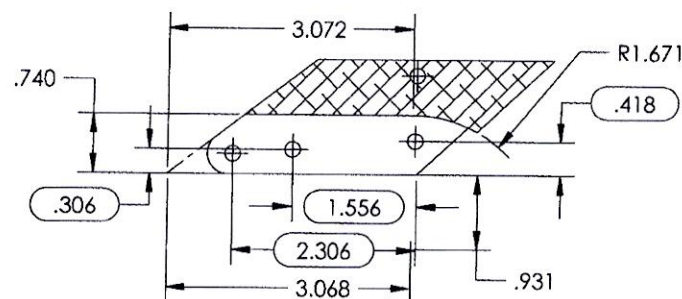


ORIGINAL DATE (SACRAMENTO) 09-10-09		APICAL INDUSTRIES	
DRAWN BY: D. SCHUB		2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL: J. BRAVO		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CONTRACT NO.		DEFLECTORS	
SIZE: B	CAGE CODE: 07MZ6	DWG NO: 647.3900	REV: C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SCALE: NONE	SHEET 5 OF 12

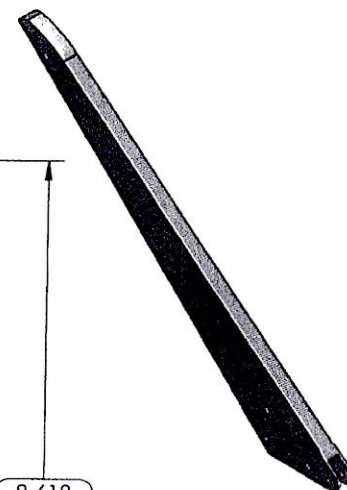
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.175 X 45.0° TYP

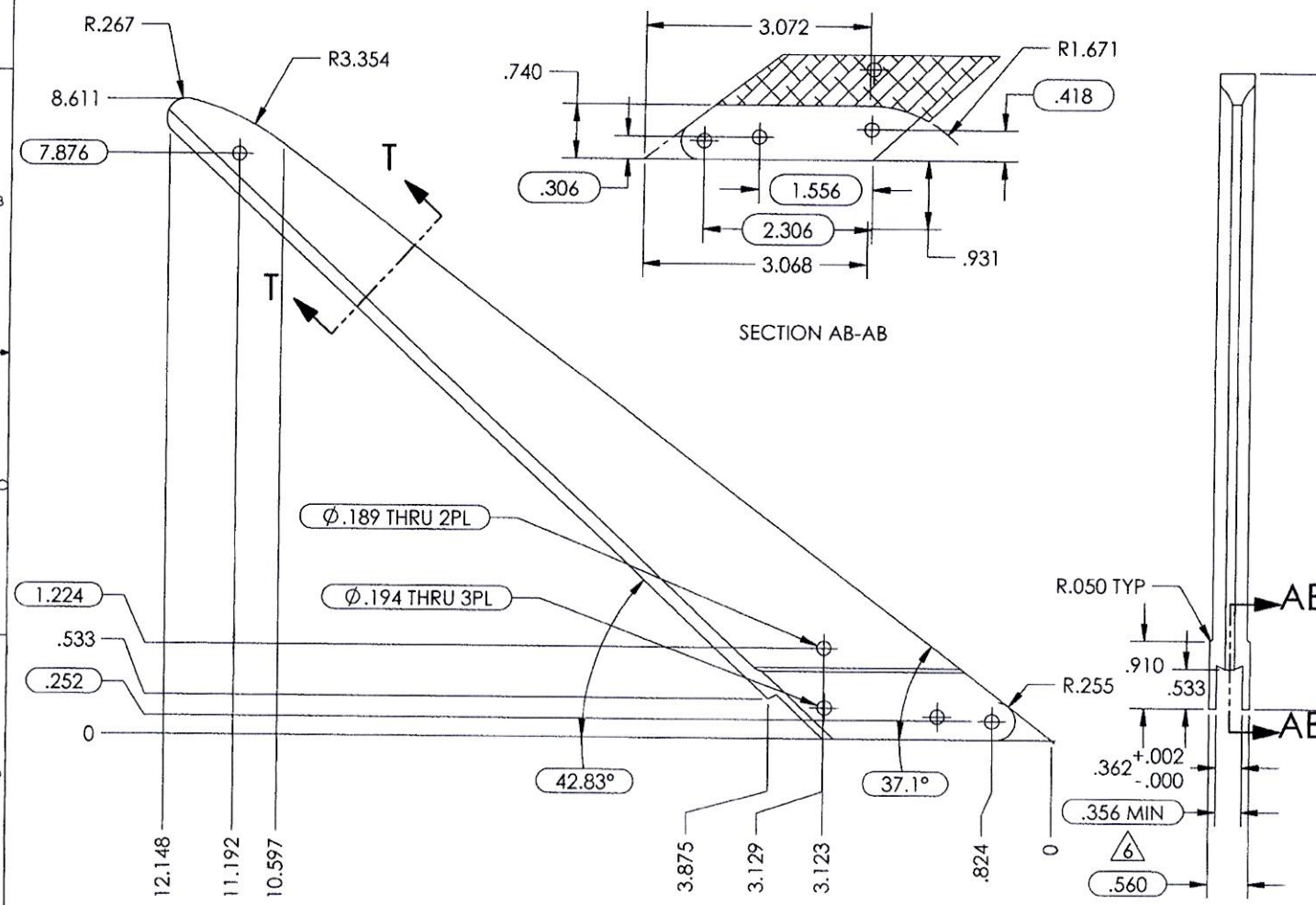
SECTION T-T



SECTION AB-AB



647.3914



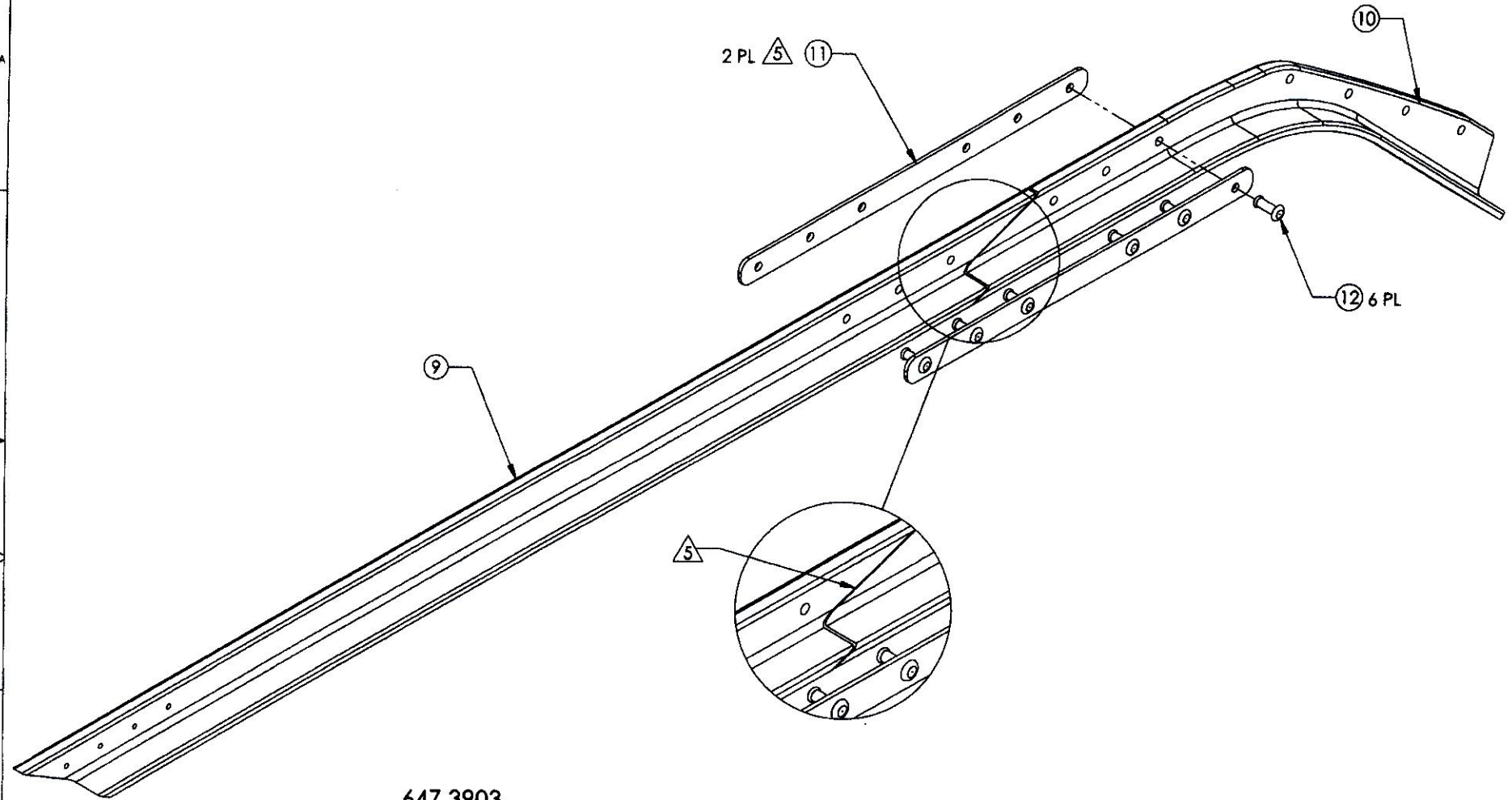
ORIGINAL DATE (DATE-12)		BY: JDP	
DRAWN BY D.SCHUR		CHECKED D.BARKER	
DRAWING APPROVAL P. BRAVO		DATE 06/02/07	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
SHEET B	CAGE CODE 07M26	DWG. NO. 647.3900	REV C
SCALE NONE		SHEET 6 OF 12	

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

DEFLECTORS

1 2 3 4 5 6 7 8

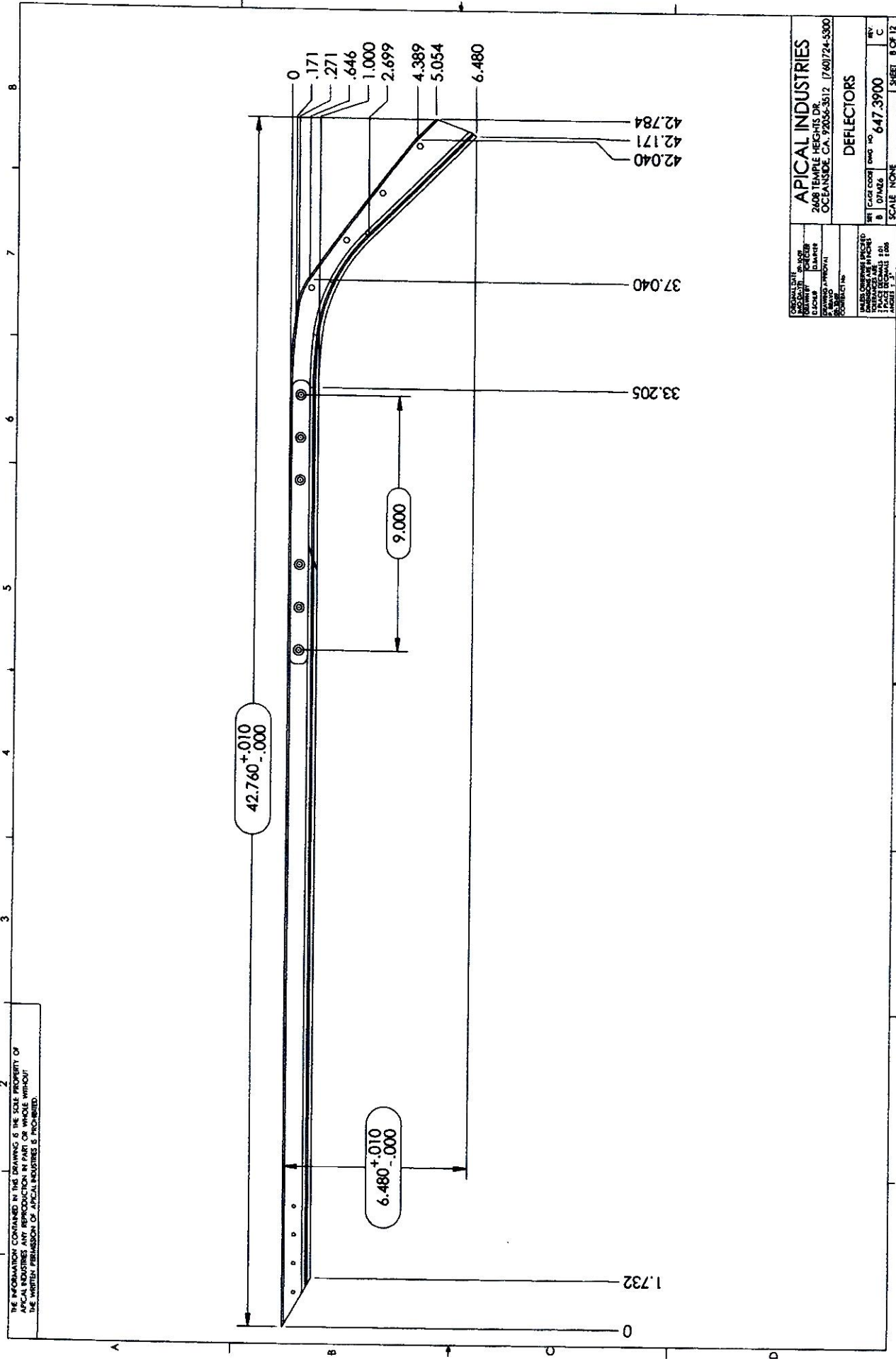
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647.3903

ORIGINAL DATE 06-10-08		APICAL INDUSTRIES	
DRAWN BY K. CHERRY		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY D. BARRER		DEFLECTORS	
DRAWING APPROVAL P. BARRER		DWG. NO. 647.3900	
CONTRACT NO.		REV. C	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		REV. B 07/03/08	SCALE NONE
		SHEET 7 OF 12	

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APICAL INDUSTRIES		2608 TEMPLE HEIGHTS DR.		OCEANSIDE, CA 92056-3512 (760) 724-5300	
DESIGNED BY: APICAL INDUSTRIES		CHECKED BY: J. L. BAKER		DATE: 10/14/88	
DRAWN BY: J. L. BAKER		APPROVED BY: J. L. BAKER		DATE: 10/14/88	
PROJECT NO: 647.3900		SHEET NO: 8 OF 12		SCALE: NONE	
DEFLECTORS		SHEET NO: 647.3900		DATE: 10/14/88	
APICAL INDUSTRIES		2608 TEMPLE HEIGHTS DR.		OCEANSIDE, CA 92056-3512 (760) 724-5300	

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647.3915

AM

AN

AR

AR

Ø.192

Ø.116

0
.375

.400

2.532

4.032

5.532

25.237

26.237

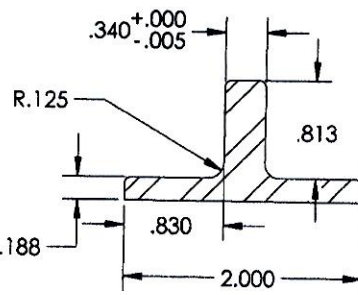
27.237

28.237

DETAIL AM

DETAIL AN

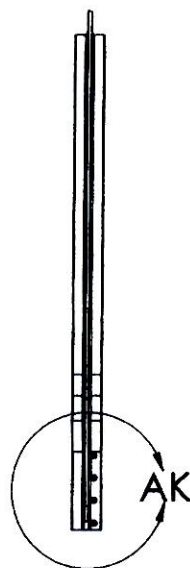
R.0625 OR 45° CHAMFER X .0625
4 PL



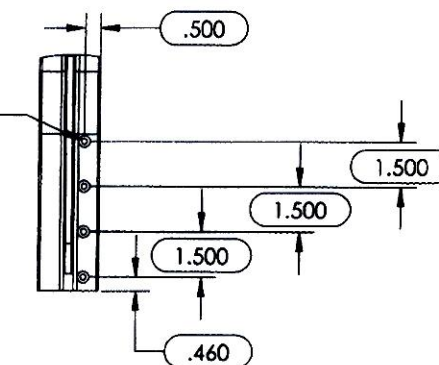
SECTION AR-AR

ORIGINAL DATE 1960-08-19		OR 10-29	
DRAWN BY D. SCHUR	CHECKED D. BARBER	APICAL INDUSTRIES	
DRAWING APPROVAL P. MAYO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CONTRACT NO.		DEFLECTORS	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± 2°		SHEET B	REV. C
CAGE CODE 07M26		DWG. NO. 647.3900	SCALE NONE
		SHEET 9 OF 12	

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4X $\phi .196 \pm .010$ THRU ALL
 $\checkmark \phi .385 \pm .020 \times 100^\circ \pm 1.000^\circ$

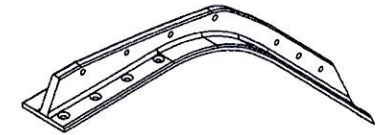


DETAIL AK

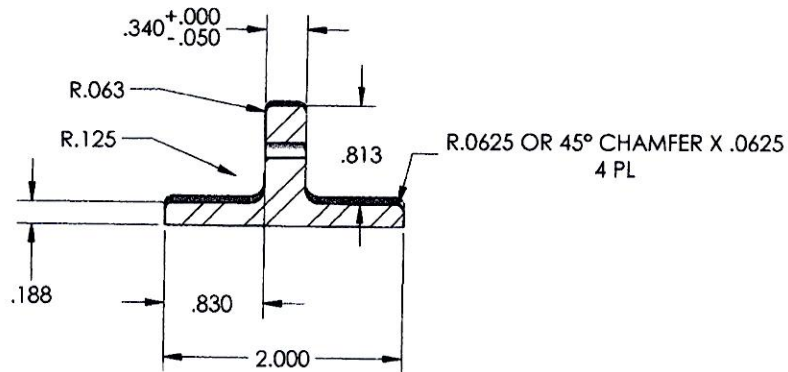
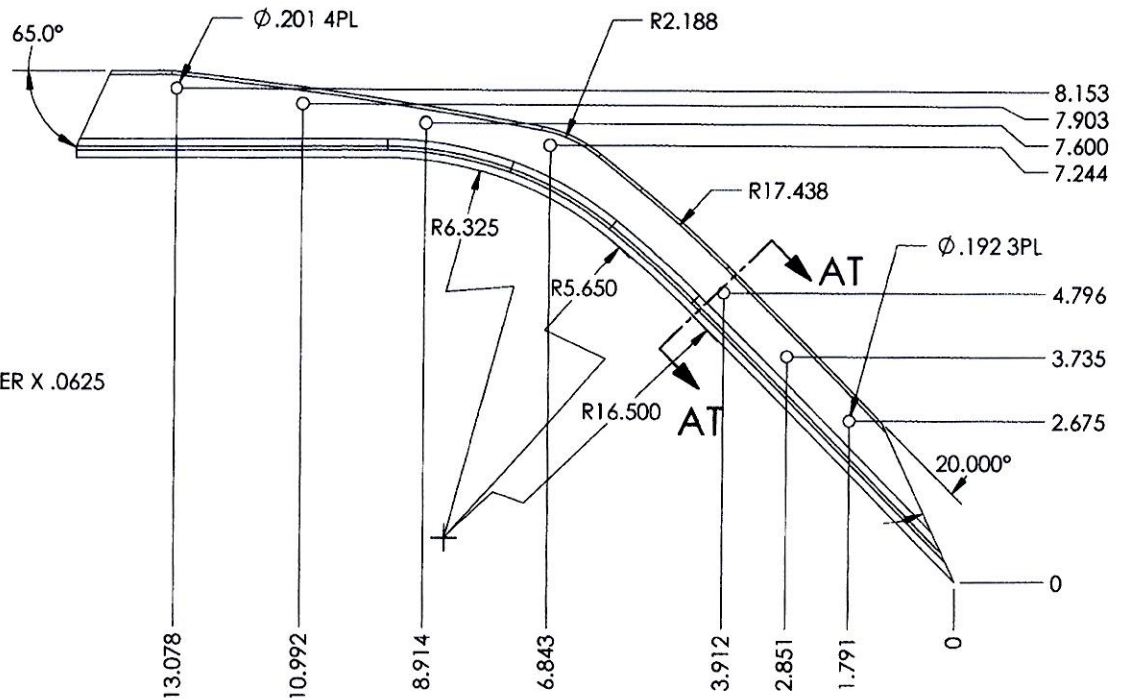
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ORIGINAL DATE 1/10/00		APICAL INDUSTRIES	
DRAWN BY D.SCHUB		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY D.BARKER		DEFLECTORS	
DRAWING APPROVAL K. BRAY		SER B	REV C
CONTRACT NO.		CAGE CODE 07M126	DWG. NO. 647.3900
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .001$ ANGLES $\pm .5^\circ$		SCALE NONE	SHEET 10 OF 12

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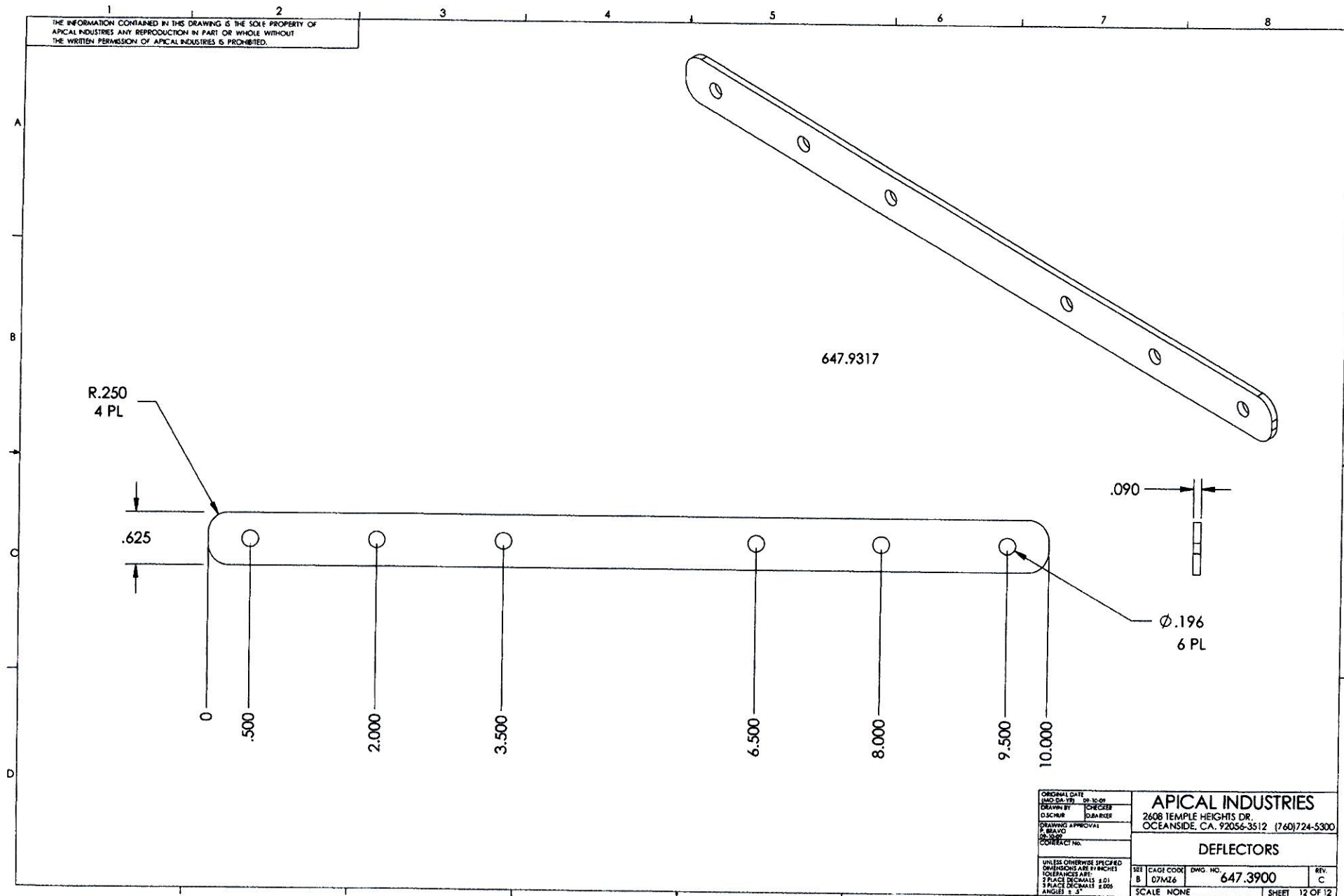
647.3916



SECTION AT-AT

ORIGINAL DATE 09-10-09		APICAL INDUSTRIES	
DRAWN BY D.SCHUR	CHECKED BY D.BARKER	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 09-10-09		DEFLECTORS	
CONTRACT NO.		SET B	REV C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.001 ANGLES ±.5°		CAGE CODE 07M26	DWG. NO. 647.3900
		SCALE NONE	SHEET 11 OF 12

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ORIGINAL DATE (MM-DD-YY) 08-10-07 DRAWN BY D. SCHUR DRAWING APPROVAL P. BAUD 08-10-07 CONTRACT NO.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		DEFLECTORS	
SEE	CAGE CODE	DWG. NO.	REV.
B	D7MZ6	647.3900	C
SCALE NONE		SHEET 12 OF 12	